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CIA HISTORICAL REVIEW PROGRAM  
RELEASE AS SANITIZED

11 July 1961

1998

MEMORANDUM FOR: Chief, Economic Research Area, ORR

THROUGH:

FROM:

SUBJECT: Survey of the Aluminum Situation  
in the Sino-Soviet Bloc, 1960-70

1. On 29 June 1961, I met with representatives of the Department of State, including Mrs. Jean Marburg and Messrs. Sivak and Smith. At that meeting, the State Department representatives requested that I review and update certain sections of a report I prepared for the Department of State in October 1960. Specifically, I was requested to update the estimates of production and demand in the Sino-Soviet Bloc for aluminum, alumina, and aluminum-bearing ore for selected years in the period 1960-70; to estimate the probable trade position of the Bloc with respect to these products; and to assess the possibility that the Bloc will become an importer of significant quantities of aluminum, alumina, and ore during that period.

2. Two copies of my response to the State Department's request are attached.  
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3. Two copies of <sup>will be</sup> were given to Mrs. Marburg of the Department of State.

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Survey of the Aluminum Situation  
in the Sino-Soviet Bloc, 1960-70

I. Production of Primary Aluminum

Total production of primary aluminum by the Sino-Soviet Bloc in 1960 amounted to about 970,000 tons. Of that total 73 percent was contributed by the USSR, 17 percent by the European Satellites and the remaining 10 percent by Communist China. Estimates of production in 1960 are presented in Table 1.

Production of primary aluminum by the Sino-Soviet Bloc probably will rise rapidly during the period 1961-70. Compared with that in 1960, production is expected to be about 11 percent higher in 1961, 110 percent higher in 1965 and 175 percent higher by 1970. Details of estimates for production by the Bloc regions in those years are presented in Table 1.

Table 1

Estimates of Production of Primary Aluminum by the  
Sino-Soviet Bloc, 1960-1970

	Thousand Metric Tons			
	1960	1961	1965	1970
East Germany	35	35	55	55
Czechoslovakia	56	56	85	85
Hungary	49.5	50	55	55
Poland	26.0	45	75	92
Rumania	0	0	25	25
China	100	110	250	400
USSR	700	800	1,400-1,500	2,000
Total	970	1,100	2,000-2,100	2,700

II. Demand and Probable Sources of Supply

A. For Primary Aluminum

Total demand of the Sino-Soviet Bloc in 1959 for primary aluminum amounted to 832,000 metric tons. Of that

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total, 95 percent was represented by internal Bloc demand and the remaining 5 percent by the export demand. Details on the origin of supply and the disposal of the supply of primary aluminum in the Bloc in 1959 are presented in Table 2, below.

Although the total demand of the Bloc for primary aluminum in 1960 cannot be quantified for lack of data, there are preliminary indications that the demand was about equal to production. During the period 1961-65, and possibly during 1966-70 also, the internal demand of the Bloc for primary aluminum probably will outstrip production of primary aluminum in the Bloc. The USSR will require large quantities of aluminum to carry out programs calling for substitution of aluminum for other, costlier metals such as copper. At the same time, the USSR has pledged to supply the European Satellites with larger quantities of aluminum, compared with quantities supplied in the past. Production in Communist China probably will not satisfy internal requirements. The Bloc therefore is expected to be seeking sources of supply of aluminum in the Free World, possibly as early as 1965.

B. For Alumina and Aluminum-Bearing Ore

Generally paralleling the trend in the production of primary aluminum projected for 1961-70, the demand of the Sino-Soviet Bloc for alumina and aluminum-bearing ore is expected to rise rapidly during the period 1961-70. Estimates of the demand of the Bloc for alumina and ore in selected years of the period 1961-70 are presented in Table 3, below.

All supplies of alumina to be used by the Bloc during 1961-70 for the production of aluminum are expected to originate within the Bloc. In general, the USSR and Communist China are expected to produce all supplies that each of them will need and the European Satellite countries are expected to produce the quantities needed by that group of countries.

The Bloc apparently has huge reserves of aluminum-bearing ores, particularly of nonbauxite ores. Those reserves are unquestionably large enough to support the expansion of

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production planned for the period 1961-65 and for continued expansion in the following five-year period. This is particularly true as the trend during those years will be toward greater relative dependence on nonbauxite ores now deemed by them to be economically processable with new technologies.

Nevertheless, the Bloc probably will not restrict itself to the use of indigenous ores and instead will rely partly on the use of imported ores during 1961-70. There are two reasons why this probably will happen. First, the quality of the ores found in the Bloc is generally much lower than that of ores used by western industry. Second, the bulk of ores found in the Bloc have to be mined by costly underground methods. The effect of these two factors is to raise the costs of producing aluminum. The Bloc therefore could reap economic gain by substituting higher quality ores from non-bloc sources.

The most likely non-bloc sources for high-quality ore are Ghana and Guinea, both of which have large reserves of high-quality bauxite. We anticipate that the Sino-Soviet Bloc will import bauxite from those African countries during the period 1961-70, although there is no evidence of Bloc plans to do so. Recently the USSR has been importing bauxite from Greece to supplement its own production. We anticipate that Soviet imports of bauxite from Greece will decrease somewhat during the next few years and will cease before the end of the period 1961-70.

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Table 2

Origin of Supply and Demand for Aluminum, Sino-Soviet Bloc, 1959

Thousand Metric Tons

	<u>Production</u>	<u>Origin of Supply</u>		<u>Demand</u>			
		<u>of Bloc</u> <u>Origin</u>	<u>Imports</u> <u>of Non-bloc</u> <u>Origin</u>	<u>to Bloc</u> <u>Destination</u>	<u>to Non-bloc</u> <u>Destination</u>		
USSR	600.0	0	0	50.3	34.7	515.0	600.0
Communist China	70.4	1.3	14.9	0	0	86.6	86.6
N. Korea & N. Vietnam	0	0.6	0	0	0	0.6	0.6
European Satellites	144.8	48.4	1.7	0	7.6	187.3	194.9
Total	815.2	-	16.6	-	42.3	789.5	831.8

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Table 3

Estimates of Demand by the Sino-Soviet Bloc  
for Alumina and Aluminum-Bearing Ore  
1960-1970

Region	Thousand Metric Tons							
	Alumina				Aluminum-Bearing Ore			
	<u>1960</u>	<u>1961</u>	<u>1965</u>	<u>1970</u>	<u>1960</u>	<u>1961</u>	<u>1965</u>	<u>1970</u>
USSR	1,400*	1,600	3,000	4,000	5,300*	6,000	12,000	20,000
Communist China	200	220	500	800	700	800	1,800	3,000
European Satellites	330	370	600	600	1,200	1,400	2,400	2,500
Total	1,900	2,200	4,100	5,400	7,200	8,200	16,000	25,000

\* This figure includes 500,000 tons satisfied by imports from Greece.

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Table 2

Origin of Supply and Demand for Aluminum, Sino-Soviet Bloc, 1959

Thousand Metric Tons

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		<u>of Bloc</u>	<u>Imports</u>	<u>to Bloc</u>	<u>to Non-bloc</u>	<u>Internal</u>	<u>Total</u>
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